

## Vita of Yiannis N. Moschovakis

**Born:** Athens, Greece, January 18, 1938.

**Education:** B.S., M.S., Mass. Inst. of Technology, 1960, Ph.D., U. of Wisconsin, 1963.

**Academic positions:** Benjamin Peirce Instructor, Harvard, 1963 - 1964. In the UCLA Mathematics Department since 1964, Professor of Mathematics 1971 - 2010; Professor of Mathematics, University of Athens, 1996 - 2005; Professor of Mathematics Emeritus, University of Athens, 2005 - ; Professor of Mathematics Emeritus, UCLA, 2010 - ; Distinguished Research Professor, UCLA (2012 - 2015, 2015 - 2018, 2018 - 2021), teaching part time on recall.

**Research interests:** Recursion theory, Descriptive set theory, Foundations of Computer Science; Philosophy of language (and mathematics).

**Teaching:** Twenty three Ph.D. students, some of them as co-advisor, the first in 1968 and the most recent one in 2019, including nineteen from Mathematics at UCLA; two from Computer Science at UCLA; one from the Graduate Program in Logic Algorithms and Computation at the University of Athens; and one from the Department of Mathematics at the University of Athens. (Three students of Abraham Robinson who finished after Robinson left UCLA and Clinton Conley (2009) who worked with Alexander Kechris at Caltech are also listed among my students, for formal reasons.)

I have been nominated by my Department for the UCLA Distinguished Teaching award, and I was awarded the Departmental Robert Sorgenfrey Teaching Award in 1996.

**Fellowships, honors, etc.:** Guggenheim Fellowship, 1968-1969; Sloan Fellowship, 1970-1972; Fullbright Travelling Lectureship (Novosibirsk), March 1979; Corresponding Member of the Academy of Athens, elected 1980; Honorary Ph.D. in Mathematics from the University of Athens, conferred 1987. Honorary Ph.D. in Mathematics from the University of Sofia (Bulgaria), conferred 2002. Commander of the order of Phoenix medal of Greece, conferred 2014. American Mathematical Society Fellow, 2016 - . The BSL 25th Anniversary Prize for exposition (one of seven), 2021.

**Publications:** Some sixty research papers in logic, set theory, recursion theory, the foundations of computer science and the philosophy of language; three research monographs, *Elementary Induction in Abstract Structures* (North Holland 1974, Dover 2008), *Descriptive Set Theory* (North Holland 1980, 2nd Ed. AMS 2009), and *Abstract Recursion and Intrinsic Complexity* (CUP, 2019); one textbook, *Notes on Set Theory* (Springer 1994, 2nd. Ed. 2006) (which has also been published in Greek).

**Administration, professional service, etc.:** MATHEMATICS DEPARTMENT, UCLA: Undergraduate Vice Chair, 1969-1970; Graduate Vice Chair, 1979-1980, 1982-1984; Chair, 1984-1987; Director of the Program in Computing, 1987-1989. ASSOCIATION FOR SYMBOLIC LOGIC: Editor of the Journal of Symbolic Logic, 1977-1982; Vice President, 1983-1986, 1989-1992; Editor of the Perspectives in Mathematical Logic Series, 1989-1998; President, 1992-1995; AMERICAN MATHEMATICAL SOCIETY: Member of the Steele Prize Committee, 1982-1985 (Chair for 1983-1985); Member of the Council, 1986-1989. NATIONAL SCIENCE FOUNDATION: Member of the Advisory Panel for Mathematics, 1980-1982; Member of the Selection Committee for Postdocs, 1981-1983. LOGIC FOR COMPUTER SCIENCE: Member of the Organizing Committee, 1990-1998; Member of the Program

Committee, 1992. GREECE: Director, Graduate Program in Logic, Algorithms and Computation (MPLA), 1997-2005.

**Some invited lectures:** International Congress of Mathematicians, 1974; International Congress for Logic, Methodology and Philosophy of Science, 1971, 1975, 1995, 2011; European Summer meetings of the ASL, 1969, 1975, 1980, 1981, 1983, 1990; ASL Annual Meeting, 1985; AMS Summer Meeting, 1984; AMS Research Institutes in Set Theory (1967) and Recursion Theory (1982); The Vienna Circle Lecture, European Summer School in Logic, Language and Information, Helsinki, August 2001; The Tarski Lectures at UC Berkeley, Spring 2008; The Heyting lecture, Amsterdam, September 2012; Two of the Lindström Lectures (the other two given by Joan R. Moschovakis), Gothenberg, Sweden, October 2014.

**Some more recent invited lectures:** 13th Workshop on Logical and Semantic Frameworks with Applications (LSFA) and Brazilian Logic Society (SBL), Fortaleza, Brazil, September 24-28, 2018; 11th Panhellenic Logic Symposium, Delphi, Greece, July 12-16, 2017; L.E.J. Brouwer, Fifty years later, Amsterdam, December 9, 2016; Workshop on “Mathematics for Computation” (M4C), Abtei Niederaltaich (Lower Bavaria, Germany), May 8 - 13, 2016; Winter School in Abstract Analysis, section Set Theory and Topology, Hejnice, Czech Republic, January 30 - February 6, 2016, three lectures in effective descriptive set theory; Summer School at Chiemsee, Germany, July 2014, two lectures on the foundations of the theory of algorithms; Workshop at CSLI, Stanford, May 31 - June 2, 2014; Workshop at UC Irvine, February 2014; Mostowski Centenary, Warsaw, October 2013; Workshop on Limits of Mathematical Knowledge, Bristol, March 2013; The constructive in logic and applications (Artemov’s 60th), New York, May 2012; Short course on Recursion and Complexity at the Logic and Interaction meeting, CIRM, Luminy, January 2012; Oberwolfach workshop in proof theory and constructive mathematics, November 2011; International Congress for Logic, Methodology and Philosophy of Science, Special session on the notion of algorithm, 2011; University of North Texas (Colloquium and RTG lecture), 2010; Warsaw University, minicourse in lower bounds in arithmetic, 2010; State University of Iowa, joint lecture to the Mathematics and Computer Science Departments, 2010; European Summer School in Logic, Language and Information (ESSLLI), Evening Lecture in July 2009 (Bordeaux) and advanced course on “Meanings as algorithms” (with Fritz Hamm) in July 2010 (Copenhagen); Computer Science Logic (CSL) annual conference, Coimbra, Portugal, September 2009; Logic in Computer Science (LICS), CMU, June 2008; Oberwolfach meeting in Proof Theory and Computation, April 2008.

## Bibliography of Yiannis N. Moschovakis

### BOOKS

1. Y.N. Moschovakis, *Elementary induction on abstract structures*. North Holland, 1974. Reprinted by *Dover Publications*, 2008.
2. Y.N. Moschovakis, *Descriptive set theory*. Studies in Logic, North Holland, 1980. Second Edition, volume 155 in the *Mathematical surveys and monographs* series of the American Mathematical Society, 2009.
3. Y.N. Moschovakis (ed.), *Logic from Computer Science*. Proceedings of a workshop held November 13-17, 1989 at MSRI, Berkeley, California; Springer Verlag, 1990.
4. Y.N. Moschovakis, *Notes on Set Theory*. Undergraduate Texts in Mathematics, Springer, 1994. Second Edition, Springer, 2006.
5. Γ. Μοσχοβάκης, *Σημειώσεις στη Συνολοθεωρία*, Greek translation of [4], Νεφέλη, Αθήνα 1994.
6. Y. N. Moschovakis, *Abstract recursion and intrinsic complexity*. Volume 48 of the *Lecture Notes in Logic* series, published by the Association for Symbolic Logic and Cambridge University Press, 2019.

### ARTICLES

1. Y.N. Moschovakis, *Recursive metric spaces*. Fund. Math., **55**, 1964, 215-238,
2. Y.N. Moschovakis, *Notation systems and recursive ordered fields*. Compositio Math., **17**, 1965, 40-71,
3. Y.N. Moschovakis, *Many-one degrees of the predicates  $H_a(x)$* . Pacific J. Math., **18**, 1966, 329-342,
4. Y.N. Moschovakis, *Hyperanalytic predicates*. Trans. Amer. Math. Soc., **129**, 1967, 249-282,
5. J.W. Addison, Y.N. Moschovakis, *Some consequences of the axiom of definable determinateness*. Proc. Nat. Acad. Sci., **59**, 1968, 708-712,
6. Y.N. Moschovakis, *Abstract first order computability:I*. Trans. Amer. Math. Soc., **138**, 1969, 427-464,
7. Y.N. Moschovakis, *Abstract first order computability:II*. Trans. Amer. Math. Soc., **138**, 1969, 465-504,
8. Y.N. Moschovakis, *Abstract computability and invariant definability*. J. Symbolic Logic, **34**, 1969, 605-633,
9. Y.N. Moschovakis, *The Suslin-Kleene theorem for countable structures*. Duke Math. J., **37**, 1970, 341-352,
10. Y.N. Moschovakis, *Determinacy and prewellorderings of the continuum*. Math. Logic and Foundations of Set Theory (Y. Bar-Hillel, ed), Amsterdam-London, 1970, 24-62,
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13. Y.N. Moschovakis, *Axioms for computation theories - First draft*. In Logic Colloquium '69, R.O. Gandy and C.E.M. Yates (eds.), North-Holland, 1971, 199-255,
14. Y.N. Moschovakis, *Predicative classes*. Proc. of Symposia in Pure Math., Part 1, Axiomatic Set Theory Amer. Math. Soc., **13**, 1971, 247-264,
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16. Y.N. Moschovakis, *Uniformization in a playful universe*. Bull. Amer. Math. Soc., **77**, 1971, 731-736,

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